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From global to local: supporting sustainable and resilient societies in urban and rural communities**Report of the Secretary-General***Summary*

Sustainable and resilient societies are fundamental for realizing the 2030 Agenda for Sustainable Development and the Sustainable Development Goals. Building sustainable and resilient societies is central to eliminating poverty, augmenting shared prosperity and leaving no one behind; it must be pursued by focusing on the economic, social and environmental dimensions of sustainable development in an integrated manner.

To inform the Economic and Social Council's consideration of the main theme at its 2018 session, in the present report, current challenges and opportunities for advancing sustainability and resilience at the local level in urban and rural communities are analysed and actions being taken in support of sustainable and resilient societies by local actors, as well as by stakeholders at the national, regional and international levels, are examined. A set of key elements have emerged as priorities for building sustainability and resilience, namely, local ownership and capacities, foresight and risk planning, policy integration, and inclusion.



I. Introduction

1. Strengthening the sustainability and resilience of societies in all countries is a core commitment embedded in the 2030 Agenda for Sustainable Development. In the face of increasingly complex development challenges at the global, regional, national and local levels, the ability of societies to prevent and respond effectively to change will be essential for making progress on the achievement of the Sustainable Development Goals. Urban and rural communities are at the front line of implementing the 2030 Agenda, and overcoming obstacles at the local level is a fundamental and urgent requirement.
2. Economic, social and environmental shocks and disasters pose immense obstacles to poverty eradication and sustainable development. Megatrends, such as climate change and rapid technological change, have the potential to severely disrupt economies and societies everywhere, and the effects of a wide range of potentially smaller shocks, such as natural hazards, disease outbreaks and economic volatility, can rapidly escalate across borders.
3. Sudden, acute shocks not only pose immediate hardships within societies but often exacerbate underlying, systemic challenges to sustainable development and develop into protracted crises. Such shocks test and weaken national and local institutions and disproportionately burden the poorest members of populations. Indeed, crises, shocks and disasters not only deepen the experience of poverty and suffering among the poor, but also push those just above the poverty threshold back into poverty. Such events can result in a significant reversal of hard won development gains, even in countries at advanced stages of development.
4. Building capacities at the national and local levels in the areas of prevention and recovery supports sustainable and resilient societies. Countries must develop the ability to address and manage risk, bolster institutions and plans for effective response and recovery and strengthen the transition to stable development in the aftermath of crises. Such support must be built on inclusive approaches that advance efforts to leave no one behind.
5. Owing to the differentiated impact of crises on local communities, local governments are often the first to respond to such events. As a result, building capacities at the local level, among urban and rural communities, is critical to ensuring that no one falls behind in sustainable development efforts. Local communities are in the best position for understanding the collective and group needs, challenges and capacities; they are repositories of local knowledge and key partners in shaping policies to achieve the 2030 Agenda.
6. The present report was prepared in support of the main theme of the 2018 session of the Economic and Social Council, namely, "From global to local: supporting sustainable and resilient societies in urban and rural communities" (see General Assembly resolution 68/1 and Council decision 2017/208).¹ It contains information on current challenges and opportunities in the achievement of the Sustainable Development Goals, especially at the local level, and analyses of the role of sustainability and resilience across actions taken in the economic, social and environmental dimensions.
7. In the present report, resilience is considered as a multifaceted concept, and selected key trends driving risk and vulnerability are highlighted. It combines analytical contributions submitted through the Economic and Social Council and from the United Nations development system with inputs from stakeholders gleaned in the

¹ The theme of the 2018 session of the high-level political forum on sustainable development is "Transformation towards sustainable and resilient societies".

context of their engagement in the annual session of the Council, which culminates with the adoption of a ministerial declaration at the high-level segment. The report should be read in conjunction with the forthcoming report of the Secretary-General on leveraging new technologies and innovation to build sustainable and resilient societies.

II. Global commitments and approaches to building resilience and reducing risk

8. Resilience is reflected in a range of targets of the Sustainable Development Goals, both explicitly and implicitly. Target 1.5 is the core resilience target, aiming at building the resilience of the poor and those in vulnerable situations and reducing their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters. Resilience is also a central feature of target 13.1, aiming at strengthening resilience and adaptive capacity to climate-related hazards and natural disasters in all countries. Resilience further underpins several other Goals and targets, including ones pertaining to hunger, infrastructure and urbanization.

9. Other major global agreements made in 2015 and 2016 also have resilience as a central component. The Sendai Framework for Disaster Risk Reduction 2015–2030 laid the groundwork for the inclusion of the matters of risk awareness and resilience in the 2030 Agenda. The Addis Ababa Action Agenda built a framework for mobilizing resources for sustainable development and improved preparedness in the face of risks, and the Paris Agreement on climate change aggregated commitments to reduce climate vulnerability through adaptation. The Agenda for Humanity and the New Urban Agenda reinforced Member States commitment to addressing multiple risks and building sustainable and resilient societies, with particular focus on the role of local communities and local capacities. Each agreement takes note the specific challenges faced by the most vulnerable countries.

10. Building resilience will require action that spans the development, humanitarian, peace and security, climate and disaster risk reduction fields. In support of wider efforts towards peace and prosperity, improved coordination will be needed to avoid duplication, maximize gains and manage trade-offs between different risks and development objectives across the various agreements, including approaches that address underlying risk drivers common to the development and humanitarian agendas, inconsistencies between development and humanitarian donor and financing systems and the weak integration of disaster risk reduction and climate change adaptation efforts into wider development planning.

11. The United Nations has recently developed a common shared understanding of resilience as an objective across its pillars of work. Historically, the concept of resilience has been used in different ways by different expert communities in the United Nations system. In countries' pursuit of an integrated sustainable development agenda, concerns about the security and stability of development gains has given rise to a renewed interest in resilience and its applicability across a wide range of crises. Recognizing the centrality of resilience in the work of the United Nations in various areas, and considering risk and resilience through a sustainable development lens, the United Nations System Chief Executives Board for Coordination recently endorsed an analytical framework on risk and resilience (see CEB 2017/6, annex III) to ensure more proactive, coordinated and effective United Nations action. The analytical framework rests on four broad principles: (a) risk and resilience are central concepts for addressing crises more proactively; (b) a risk and resilience approach should reflect the reality that risks are interrelated, complex and must be understood across

different levels of impact; (c) risk and resilience are important common threads across the United Nations pillars, which could promote coherence; and (d) core concepts should be harmonized, including a common definition and understanding of resilience as the ability of individuals, households, communities, cities, institutions, systems and societies to prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively when faced with a wide range of risks, while maintaining an acceptable level of functioning and without compromising long-term prospects for sustainable development, peace and security, human rights and well-being for all.

12. The analytical framework will be operationalized at the country level by the United Nations Development Group. It is potentially applicable to a wide range of system-wide efforts to address challenges, such as climate change, and to enhance cooperation and complementarity among development, disaster risk reduction, humanitarian action and sustaining peace.

III. Drivers of risk in urban and rural communities

13. Consistent with the above framework, selected key drivers of risk in urban and rural communities are identified below. The risks identified are not exhaustive, but focus on selected areas of significant impact at the local level and are relevant to the Sustainable Development Goals that are to be reviewed in depth in 2018.²

A. Climate change

14. The effects of climate change will continue to pose significant risks of disruption to economies and the lives of billions of people in the years ahead. The years 2015, 2016 and 2017 were confirmed as the three warmest years on record, and climate-related impacts on development are already being observed in many countries. Such risks to ecosystems, economies and human well-being will continue to increase along with increases in the magnitude of warming.

15. Extreme weather events are becoming more frequent and increasingly devastating. The very active North Atlantic hurricane season, major monsoon-related flooding in the Indian subcontinent and continuing severe drought in parts of eastern Africa contributed to 2017 being the year with the highest costs to date relating to severe weather and climate events.³ In addition to their human toll, annual economic losses from earthquakes, tsunamis, cyclones and flooding have been estimated at \$300 billion globally; considering the catastrophic Atlantic hurricane season in 2017, that figure is likely to have been exceeded in 2018. For small island developing States, the average annual losses owing to disasters is equivalent to almost 20 per cent of total social expenditure.

16. In addition, extreme droughts have exacerbated hardship and social unrest at the local level, in particular in arid and semi-arid regions where water scarcity and increasing pressure on natural resources are the norm. More than 60 per cent of humanity currently lives in areas of water stress, where water supply cannot meet demand, which could worsen if water resources are not better managed.⁴

17. The problems of acute food insecurity and malnutrition are compounded by natural hazards, such as droughts, floods and increasing extreme weather events. They

² Sustainable Development Goals 6, 7, 11, 12 and 15. Goal 17 is reviewed annually.

³ World Meteorological Organization, *WMO Statement on the State of the Global Climate in 2017* (Geneva, 2018).

⁴ WaterAid, *The Water Gap: the State of the World's Water 2018* (March 2018).

are likely to increase with climate change, threatening food and nutrition security and creating many subsequent challenges for urban and rural populations. Rural and food-insecure populations in particular are disproportionately affected, jeopardizing production, distribution and livelihoods and, in some cases, driving competition over scarce resources.

18. Climate change also has an impact on the forced or involuntary migration of people. At present, most environment and climate-related migration is believed to take place over relatively short distances and usually does not involve cross-border movements. Whereas many such migrants are able to return to their homes within a relatively short time period, for some, their situations may become protracted or they may require permanent relocation.

B. Poverty and inequality

19. Notwithstanding the vast progress made, evidence shows that the risk of poverty worldwide still poses a threat to the achievement of the Sustainable Development Goal target to eradicate extreme poverty by 2030. Current estimates based on projections for consumption growth and population growth suggest that there may be around 650 million people living in extreme poverty in 2030.⁵ Estimates show that 78 per cent of the extremely poor were living in rural environments as of 2010.⁶

20. Sustained, inclusive and sustainable growth is essential for poverty eradication and requires coherent action at the national, regional and global levels, in the increasingly interconnected global economy. The steady revitalization of the global economy since the global economic and financial crisis of 2008–2009 is welcome, however, progress has not been uniform and vulnerabilities persist. Outside of developed countries and large emerging economies, much of the world has yet to achieve or return to a healthy growth rate.

21. According to the International Labour Organization, global unemployment levels and rates are expected to remain high in the short term, at around 5.8 per cent in 2017, or slightly more than 201 million people. Employment creation remains stagnant in many countries since the reshaped jobs landscape following the 2008–2009 global financial crisis. Recovering all the jobs lost during that period remains a challenge, which is further compounded by population growth and job losses stemming from rapid technological change in many industries.

22. Job creation alone is insufficient; it is also essential that job quality be addressed. The global labour market has seen only weak progress in addressing the risk of “working poverty”, or living under the poverty line despite employment. Almost 780 million people are working but not earning enough to lift themselves and their families above a \$2 per day threshold, and large disparities persist across groups, including for women and young people (see E/CN.5/2018/3).

23. The risk of poverty is exacerbated by the dominant trends in rising inequalities. Even where poverty has been reduced, pervasive inequalities remain, hindering poverty eradication and increasing polarization within societies. Apart from issues of equity and fairness, growing inequality is detrimental to efforts to expand opportunities and enable social mobility, with a view to promoting economic growth. Furthermore, inequalities undermine social cohesion and can increase political and social tensions within countries, sometimes raising the risk of instability or conflict.

⁵ *World Economic Situation and Prospects* (United Nations publication, Sales No. E.18.II.C.2).

⁶ Food and Agriculture Organization of the United Nations, *The future of food and agriculture: trends and challenges* (Rome, 2017).

Among other consequences, the resulting risk levels and systemic vulnerability can discourage investment and have a negative impact on growth.

24. There remains concern regarding the share of income and wealth controlled by the richest, and the risk of growing inequality because the benefits of rapid technological change accrue disproportionately to the rich. The nature of work is undergoing a transformation, as technological advances in such areas as artificial intelligence, machine learning, robotics, nanotechnology, 3D printing, genetics, biotechnology and smart systems are becoming increasingly interconnected, building on and amplifying one another. Their transformative, yet disruptive, powers have the potential to yield significant benefits, as well as multiple challenges, spanning the ethical, technical and socioeconomic spheres.

25. For instance, artificial intelligence presents immense potential for transforming production and consumption patterns and reshaping social, economic and cultural interactions. It can increase and complement human capacities. Artificial intelligence algorithms increasingly inform and facilitate decision-making in both the private and public sectors, such as in hiring and in providing credit and social services, including child protection services, and in criminal justice systems. In agriculture, a drone made with a 3D printer and powered with artificial intelligence may soon be capable of spraying an "intelligent" quantity of seeds, fertilizers and pesticides, by taking into account potential weather patterns and nutrient and moisture levels in the soil. However, artificial intelligence has the potential to render many jobs, even professions, obsolete, increasing unemployment and wage and income inequality. There are also significant ethical concerns about artificial intelligence-based decision-making, as it may lead to entrenched biases and undermine accountability.

C. Poorly managed urbanization

26. As of 2018, 55 per cent of all people live in cities, and, by 2030, the share of the world's population living in urban areas is expected to reach 60 per cent. The number, and in many cases also the size, of cities has increased considerably in recent decades. Megacities, those with 10 million or more inhabitants, of which there were only 10 in 1990, currently number 33, and there could be 41 by 2030.

27. Although rapid urbanization holds the potential to transform cities into unique hubs for services, sustainability and better social and economic opportunities, if not adequately managed, it can also generate environmental stress, inequalities and new forms of vulnerability and exclusion. Unplanned or inadequately managed urban expansion can impair sustainability, through the resulting urban sprawl, pollution and environmental degradation. It can also lead to unsustainable energy consumption. Currently, urban areas account for 70 per cent of global greenhouse gas emissions and waste and 70 per cent of global gross domestic product; cities make up 60 per cent of global energy consumption.

28. The pace of environmental degradation is accelerating both the frequency and intensity of natural hazards and exponentially increasing the vulnerability of urban areas owing to the resulting social, economic and physical disturbances and significant population displacement. The World Bank has predicted that, by 2050, the urban population exposed to cyclones will increase from 310 million to 680 million people and those exposed to major earthquake risk will increase from 370 million to 870 million people.⁷

⁷ World Bank, *Building resilience: integrating climate and disaster risk into development* (Washington, D.C., 2013).

29. Estimates suggest that \$6 trillion a year will be invested globally in infrastructure by 2030, however, almost 7 per cent of this, or \$415 billion, will be lost to disasters annually.⁸ With 60 per cent of what will be urban in 2030 having yet to be built, urban growth presents an unparalleled opportunity to reduce the economic, social and environmental impacts of disasters.⁹

D. Environmental degradation

30. Unsustainable resource use undermines resilience. Current patterns of consumption and production are unsustainable, and the growing demand for resource-intensive goods and services could increase with the growing global middle class. The Earth's resources are being used faster than many ecosystems can replenish them, and biodiversity loss is accelerating. A significant proportion of managed and natural ecosystems are degrading; over the past two decades, approximately 20 per cent of the Earth's vegetated surface has shown declining trends in productivity owing primarily to the misuse and mismanagement of land and water resources.¹⁰ Such degradation drives down the long-term health and productivity of ecological resources, with the potential to result in their depletion.

31. Soil erosion, desertification and water scarcity all contribute to hardship and stress among societies, in particular in rural communities. Over 1.3 billion people are trapped on degrading agricultural land; farmers on marginal lands have limited options for alternative livelihoods and are often excluded from wider infrastructure and economic development. In that regard, land degradation could be considered a threat amplifier, especially when it slowly reduces ability to use the land for food production and water storage or undermines other vital ecosystem services, which in turn increases human vulnerability to various risks.

32. The world's oceans are under stress from human activity, with a complex mix of environmental, social and economic impacts. Overfishing and other extractive activities, coastal development, pollution and tourism are damaging essential natural habitats and reducing the population of marine species at an alarming rate, which is compounded by climate change and the effects of warmer temperatures and acidification of ocean water.

IV. Actions and tools for building sustainable and resilient societies at the local level

33. Policies and actions at the global, regional, national and local levels can support sustainable and resilient societies in urban and rural communities. Critical areas for implementing the 2030 Agenda on the ground, especially those elements that reduce and manage risk and invest in resilience, are highlighted below.

⁸ United Nations Office for Disaster Risk Reduction, "Reducing disaster risk in urban settings", issue brief (2015).

⁹ United Nations Office for Disaster Risk Reduction, *Global Assessment Report on Disaster Risk Reduction 2015* (Geneva, 2015).

¹⁰ Secretariat of the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, *Global Land Outlook* (Bonn, Germany, 2017).

A. Sustainable and resilient livelihoods

34. A wide range of research has shown that employment and unemployment plays a role in prompting the exit and entry, respectively, into poverty, with implications for risk exposure. Addressing that fundamental development challenge requires broad-based growth and multisectoral, integrated solutions for the provision of adequate employment and income for women and men, and addressing structural barriers to economic empowerment.

35. Sustainable livelihoods rely on jobs that are of high quality and have good conditions of employment. It is important for gender equality, sustainable development and inclusion that job holders have equal pay for work of equal value, fair living wages, work environments free of violence and harassment, access to social protection and prospects for personal and social development. Women specifically face multiple and intersecting forms of discrimination in access to and participation in labour markets.

36. The demographic transition from a young and old population within a country is also an important area for the attention of policymakers. An initial rise in the share of persons at working ages, known as a "demographic dividend", creates a window of opportunity for rapid economic growth and sustainable development. Many countries, especially those in sub-Saharan Africa and the least developed countries, have the possibility of reaping the benefits of that phenomenon in the coming decades, if they invest in child and youth development, specifically in terms of policies that support a healthy and educated population, provide decent jobs for those of working age and create conditions conducive to investment and growth. Such a focus can also improve social cohesion and intergenerational solidarity, with stabilizing effects in post-conflict countries.

37. Guaranteeing universal access to basic social services and additional and more direct interventions, such as social protection and increasing access to assets, are important ways of building resilience, especially for the working poor. Universal social policies are dually effective in reducing the vulnerability of those experiencing poverty, unemployment or poor health and supporting those that may need help because of an unexpected life event, which becomes especially important in response to large-scale disruptive shocks or crises that can affect individuals and households that are typically stable.

38. Social protection systems mitigate risks and protect people from falling into poverty. According to one estimate, the number of people living in extreme poverty would be between 136 million and 165 million people higher without social protection transfers. Such protection helps manage trade-offs between immediate needs and future livelihoods, and builds resilience by supporting capital accumulation and investment. Social protection programmes have been shown to help break the cycle of intergenerational poverty, when targeting children's access to health and education. Social protection can also boost resilience throughout economic cycles, and during economic downturns, social protection spending can stimulate growth and employment.

39. The most effective programmes address work opportunities and social protection in an integrated manner. In India, many people who are unemployed, including migrant workers who earn their income through casual jobs, have found a safety net in the programmes instituted under the Mahatma Gandhi National Rural Employment Guarantee Act, which have reached hundreds of millions of people who were traditionally sidelined from local labour markets and social protection schemes, in particular women, members of disadvantaged castes and tribes and people in rural areas. It has helped to slow the rate of rural-urban migration and, in some cases, to reverse it.

B. Access to water and sanitation

40. Safe, secure and clean water and sanitation infrastructure and services are particularly important for poverty eradication, the reduction of inequalities and building sustainable and resilient societies in urban and rural communities. Such infrastructure is integral to making progress in the achievement of Sustainable Development Goal 6 on ensuring availability and sustainable management of water and sanitation for all and requires the implementation of target 6.b on supporting and strengthening the participation of local communities in improving water and sanitation management.

41. Sustainable water management is also critical for addressing disaster vulnerability and strengthening the resilience of communities to water-related hazards, including floods, droughts, hurricanes, storm surges and landslides, which account for approximately 90 per cent of disaster events worldwide. Population growth in areas prone to flooding and increased agricultural development on marginal lands is further increasing exposure and vulnerability to such risks. Robust and sustainable management of water resources and strengthening efforts to mainstream disaster risk reduction strategies into water management will significantly contribute to reducing the impacts of water-related hazards.

42. Ensuring access to clean water and sanitation is usually a responsibility of local governments, and access is therefore dependent upon effective local governance, natural resource management and urban planning. In urban areas, the main challenge is often lack of access to basic services in informal settlements or high prices and a lack of quality control over water from private vendors. In rural areas, water may be free, but gaining access to it may involve long journeys to and from the source, which may be contaminated. Local governments have a role to play in improving water quality through environmental protection measures and sustainable solid waste management. Integrated water resources management requires horizontal cooperation in planning and environmental policy across municipal, regional and international borders. Local governments are ideally placed to include communities in the management of water and sanitation services.

43. Experience has shown the effectiveness of local communities embedding integrated water resources management and risk-mitigating infrastructure into new and existing construction projects. Examples include restored urban green areas, wetlands and waste-stabilization ponds in Kolkata, India, water-efficient buildings in the Republic of Korea, vertical farming, inside multistorey buildings across various countries, which has shown great potential to contribute to food security, and rainwater catchment systems, such as those in Kiribati.¹¹

C. Affordable, reliable, sustainable and modern energy for all

44. Access to sustainable energy is a prerequisite for poverty eradication and building the sustainability and resilience of communities, as outlined in Sustainable Development Goal 7 on ensuring access to affordable, reliable, sustainable and modern energy for all. Access to clean and affordable energy is a key enabler of sustainable development in terms of nutrition, transport, education and economic opportunity. Increasing access to energy and promoting renewable energy and energy efficiency in a manner that is responsive to the needs of different sectors of the population are priorities. Transitioning to clean and affordable energy will also help

¹¹ United Nations World Water Assessment Programme, *The United Nations World Water Development Report 2017* (United Nations Educational, Scientific and Cultural Organization: Paris, 2017).

countries to reduce the impacts of indoor and outdoor air pollution. It could help to establish access to energy in places that are difficult to reach and strengthen low-carbon development.

45. The transition towards sustainable energy is advancing at a gradual pace and must be accelerated. Clean energy installations, driven by new solar and wind power capacity, account for more than half of all recently installed power capacity but provide only 11 per cent of power generation globally. Owing to the rapidly decreasing costs of renewable energy technology and new business models, decentralized energy solutions hold great promise for accelerating the achievement of universal access to sustainable energy. Renewable energy has become the cheapest source of power for a growing number of countries, and the decrease in cost is likely to continue over the next decade. Owing to its increasing affordability, the applications and use of renewable energy have broadened and are providing new solutions for mobility and energy security worldwide.

46. Although growth in energy infrastructure can drive economic and social progress, because of the size of electricity networks exposed to hurricanes, earthquakes, droughts and floods, energy infrastructure is exposed to disasters to a large extent, causing significant social and economic disruptions. A prerequisite of measures to ensure access to energy for all is building the resilience of new and existing energy infrastructure to guarantee that they remain safe, effective and operational during and after disasters.

47. The Sustainable Energy for All initiative has noted the impressive progress made in Bangladesh and Kenya in expanding access to energy to both urban and rural communities, driven by a combination of policies and integrated electrification strategies that rely on a mix of electrical grids, mini-grids and decentralized solar resources. Both countries have also devised policies and regulatory frameworks that attract diverse sources of public and private financing for energy-related projects and have been recognized for their improvements to regulatory frameworks for sustainable energy.¹²

48. Local governments are often in the best position for identifying gaps in access to affordable energy among vulnerable groups within communities. Local governments can directly contribute to energy efficiency by investing in energy efficient buildings, using green energy sources in public institutions and introducing sustainability criteria into procurement practices. Such initiatives can have the added advantage of reducing public spending on energy. In cities, local transport and urban planning policies, as well as new "smart city" technologies, can have a significant impact on energy efficiency and carbon emissions.

D. Resilient cities and strengthened urban-rural linkages

49. Cities face new and evolving challenges because of rapid urbanization, a changing climate and social instability. From earthquakes to flooding, rapid population changes to social exclusion, cities face a range of shocks and stresses, both natural and human-made. Unplanned cities are, however, more vulnerable to shocks, sometimes literally in the case of cities built on fault lines susceptible to earthquakes.

50. A resilient city assesses, plans and acts to prepare for and respond to foreseeable hazards — both sudden and slow-onset. By doing so, resilient cities are better able to protect and enhance people's lives, secure development gains, foster an environment conducive to investment, and drive positive change. Urbanization promotes development through the proximity and clustering of economic opportunities,

¹² SE4All (2017) *Energizing Finance*.

efficient service delivery and greater productivity of labour. To reap the benefits of these urban assets while minimizing the environmental and other adverse impacts of urban growth, governments must adopt strategies to plan for future urban growth. Government policies for planning and managing urban growth and that are based on good data and strategic planning, can help ensure that the benefits of urbanization are shared equitably and sustainably.

51. Under current policies and practices, the unprecedented urban expansion forecasted through 2030 will have a significant impact on important ecosystems and areas of biodiversity. Thus, ecosystem services — that is, the ways in which nature benefits households, communities and economies, for example through the regulation of the natural water cycle — and natural solutions must be integrated in urban policy and planning. To integrate a stronger consideration of urban biodiversity and ecosystem services into local governance, the key elements of a local biodiversity strategy and action plan can be incorporated into overarching city-wide plans, based on the guidelines prepared by the ICLEI — Local Governments for Sustainability, the United Nations University Institute for the Advanced Study of Sustainability and the Secretariat of the Convention on Biological Diversity.

52. Further, investments in infrastructure, such as transportation, basic services, industry, energy and housing, should be disaster risk-informed and resilient. This is especially important considering the increased exposure of people, critical infrastructure and economic investments to disasters as the result of climate change and uncontrolled urbanization. To address this, countries must strengthen national and local governance structures and normative and regulatory frameworks for disaster risk reduction in urban areas, including by improving and enforcing land-use plans and building codes. Building resilience should be affordable with reduced economic incentives for unsustainable development. Disaster risk assessments should become a prerequisite for new infrastructure and housing investments.

53. It is essential that local governments, particularly in the most vulnerable cities, integrate climate change adaptation and mitigation into urban and regional planning to reduce the emissions of cities and increase their resilience to environmental shocks. Technology is a key tool for ensuring that urban services can weather extreme conditions and promote the resilience of urban communities. For example, in the waste management sector, technological innovation can help reduce the emissions of greenhouse gases during the waste treatment process, promoting climate resilience. Cities could also contribute to mitigation efforts by converting waste to energy as part of this process.

54. In urban contexts, vulnerable groups and the poor are disproportionately affected by shocks and stresses, as they often live in precarious locations and situations and do not have the resources or capacity to recover. Local authorities should encourage and support the active involvement of civil society organizations, including those representing migrant groups, in efforts to improve housing, infrastructure and social services for the poor and to reduce the vulnerability of low-income groups to environmental hazards.

55. Given the widening rural-urban divide in income and other development indicators, governments should consider rural-urban integration in planning, infrastructure and the provision of public services, among other areas. A policy priority should be to ensure the complementary and mutually reinforcing development of both rural and urban areas and minimize such divides. The discussion on the rural-urban divide can also be relevant to rising populism in many parts of the world, in part due to widening inequalities eroding social cohesion and fostering discontent, instability and political upheaval.

56. Planning for the delivery of services to urban and rural dwellers should include the consideration of different scenarios for the future growth of urban centres and surrounding rural settlements, taking into account patterns of internal migration and mobility and the spatial distribution of the population. For example, regional and municipal governments should consider how urban infrastructure links to surrounding territories, ensuring that urban areas work in harmony with the rural areas on which they rely for food and natural resources.

57. A critical rural-urban linkage to be strengthened concerns the need for more sustainable and healthy approaches to feeding the growing population. This is especially critical considering food and nutrition insecurities and the growing demand for food associated with rapid urbanization. Bringing smallholder farmers and rural dwellers into improved food value chains that span rural and urban communities could open up new opportunities for livelihoods and resilience, but only if enabling, integrated and inclusive policies and investments are in place. Special focus should be put on rural and farming communities, rural women, rural youth and indigenous peoples.

58. One relevant example identified by the Food and Agriculture Organization of the United Nations and the International Food Policy Research Institute is in Viet Nam, where the agricultural village Nhat, in the Red River Delta, has been shown to benefit from strengthened rural-urban linkages: an improved road and transport system, good communications infrastructure and strong connections to agricultural service suppliers. With increased access to nearby urban markets and export markets, farm households in the community successfully diversified agricultural activities beyond subsistence rice production and towards the intensive, high-value production of fruits and vegetables.¹³

E. Sustainable management of resources and ecosystems, and biodiversity protection

59. Ecosystem protection and restoration offer sustainable and cost-effective solutions for disaster risk reduction. Disaster risk reduction is therefore a crucial contribution to achieving Sustainable Development Goal 15 on protecting, restoring and promoting the sustainable use of terrestrial ecosystems, while ecosystem protection contributes substantially to building resilience and reducing disaster risk.

60. The sustainable management and use of natural resources — including terrestrial biodiversity and water — is central to building resilience and adapting to the effects and mitigating the drivers of climate change. Evidence shows that steep increases in demand for certain natural resources often results in negative environmental repercussions, such as higher greenhouse gas emissions, with implications for climate change. Resilience also requires confronting more systemic global environmental changes, such as the exhaustion and pollution of water bodies, chemical pollution of soils and air, loss of biodiversity, depletion of the atmospheric ozone layer, acidification of oceans, disruption of the nitrogen and phosphorus cycles and change of land use.¹⁴ Therefore, the conservation of ecosystems and biodiversity is not only a way to mitigate risks but also fundamental to maintaining ecosystem services that are critical for quality of life, and productive and reproductive activities.

61. Local governments are in a unique position to protect natural resources and habitats. Local and subnational governments should ensure that biodiversity

¹³ International Food Policy Research Institute, *2017 Global Food Policy Report*.

¹⁴ Steffen et al., "Planetary Boundaries: Guiding human development on a changing planet", *Science*, vol. 347, no. 6223, 2015.

conservation is an integral part of urban planning and development strategy. Biodiversity conservation often requires cooperation between municipalities across their borders, for example in the creation of transboundary, biodiversity and wildlife corridors. Community-based participation and management, facilitated by local governments, is a powerful tool to halt biodiversity loss and prevent the extinction of threatened species.

62. It is important to note that, globally, groups such as smallholders, including pastoralists and indigenous peoples, manage a significant share of these resources, while being among those most vulnerable to the effects of climate change, land degradation and biodiversity loss. Critically, these groups are often repositories of rich, varied and locally rooted knowledge systems. An enabling institutional and policy environment is needed for these actors to contribute to enhancing the broader sustainability of societies.

63. As one way of bolstering vulnerable rural and peri-urban populations' resilience through sustainable resource management, United Nations Environment Programme's Microfinance for Ecosystem-based Adaptation project partners with local microfinance providers in the Andean region of Colombia and Peru to generate microfinance services and products that facilitate local investment in sustainable ecosystem services. In the process, participants devise ways of improving their livelihoods and strengthening resilience to the effects of climate change. In a unique format linking microfinance and ecosystem-based adaptation, the project provides microfinance products to enable small-scale farmers to invest in ecosystem-based adaptation activities. As of 2017, 11,100 credits had been disbursed, amounting to \$14.2 million of private investment towards ecosystem-based adaptation, and more than 7,000 small-scale farmers received awareness-raising and training on ecosystem-based adaptation measures. The project has also shown the potential for scaling up into other communities, with significant implications for sustainability and resilience.

V. International cooperation and partnerships in support of sustainable and resilient societies

Financing for sustainable development

64. All forms of development finance — public and private, domestic and international — must adequately take into consideration risk and resilience. For example, vulnerabilities will be compounded if the anticipated trillions needed for building infrastructure by 2030 are not allocated according to low-carbon and climate-resilient parameters.¹⁵ International public finance, including official development assistance (ODA), is a critical complement to domestic resource mobilization, which at current levels remains insufficient to meet public investment needs. The roles of ODA and domestic resources are critical but insufficient to build resilience to the broad range of shocks that could have a negative impact on the achievement of the 2030 Agenda for Sustainable Development.

65. ODA flows decreased slightly in 2017 in real terms, but the decline in ODA to least developed countries was reversed. While this is welcome, overall disbursements to those countries in greatest need of concessional resources and most vulnerable to shocks and crises have stagnated.¹⁶ Much of the increase in ODA in recent years was

¹⁵ ODI and United Nations Development Programme, "Financing Sustainable Development: the critical role of risk and resilience", 2016.

¹⁶ *Financing for Development: Progress and Prospects 2018* (United Nations publication, Sales No. E.18.15). Available from: https://developmentfinance.un.org/sites/developmentfinance.un.org/files/Report_IATF_2018.pdf.

due to the resources being spent on refugees in host countries; the slight decline in ODA in 2017 reflects the receding of these costs. ODA reporting rules for hosting refugees were updated and clarified in the 2017 high-level meeting of the Development Assistance Committee of the Organization for Economic Cooperation and Development, as standards used by providers were not uniform. Humanitarian aid rose by 6.1 per cent in real terms in 2017, to \$154.45 billion. These increases have raised concerns that spending on refugees and humanitarian aid could negatively impact funding for longer-term development objectives.

66. Rethinking the way ODA is spent is necessary to better incorporate risk reduction and resilience. The Addis Ababa Action Agenda committed countries to allocate concessional resources to countries with the greatest needs and the fewest options for mobilizing resources. ODA fulfils important functions that other sources of finance cannot and is a vital resource for building resilience, especially in highly vulnerable poor countries. Middle-income countries and countries in special situations, such as small island developing States, also have diverse development needs that must be considered. For example, the remoteness, size and vulnerability of such States to external shocks exacerbate their continued dependence on official concessional financing and their limited ability to mobilize domestic resources. Adequate consideration of risk levels and the commitments in the Addis Ababa Action Agenda could help to ensure a rational global allocation of bilateral development aid.

67. The growing cost of disasters each year has increasingly revealed gaps in the current international development finance architecture for countries responding to crises and attempting to build resilience. Another relevant aspect is the speediness of the release of funds. Additionally, countries affected by disasters may already have high levels of indebtedness; reconstruction, which requires a major injection of additional financing, can exacerbate debt levels. Innovative solutions such as multi-creditor debt swaps for climate action and resilience could be considered, building on the work being done by the Economic Commission for Latin America and the Caribbean in this area.

68. Under the Paris Agreement, parties committed to mobilizing at least \$100 billion per year for climate change mitigation and adaptation activities in developing countries to help communities to build resilience. While there is no central accounting mechanism for climate finance flows, adaptation activities are clearly underfunded. Recent assessments find that adaptation finance, while still vastly insufficient, is catching up, partly thanks to the Green Climate Fund, partly due to climate-related ODA for adaptation.

Investing in disaster risk reduction

69. Analysis has shown that annual investments of \$6 billion in disaster risk reduction could generate risk reduction benefits of up to \$360 billion. Financing disaster risk reduction, therefore, releases resources to be invested across the Sustainable Development Goals, and can be a driver of innovation, green growth and other objectives. Such investments are cost-effective too, representing only 0.1 per cent of the estimated \$6 trillion per year that must be invested globally in infrastructure by 2030.¹⁷

70. Such statistics underline the importance of supporting the development and implementation of national disaster risk reduction plans that address the growing challenges of climate change, environmental degradation, urbanization and

¹⁷ United Nations Office for Disaster Risk Reduction. "Global assessment report on disaster risk reduction 2015". Available at: https://www.preventionweb.net/english/hyogo/gar/2015/en/home/GAR_2015/GAR_2015_1.html

population growth. A risk-informed approach to sustainable development is needed to ensure that investments towards the Sustainable Development Goals reduce rather than create new disaster risks. Special emphasis should be placed on the least developed and most vulnerable countries, including through South-South cooperation and facilitating the use of innovative methods and technologies.

71. Formulating strategies and plans for sustainable development, disaster risk reduction and climate change adaptation provides an opportunity to enhance coherence between intergovernmental agreements at the national and local levels. In line with Sustainable Development Goal 1 on ending poverty and its target 5 on resilience, countries must redouble their efforts to integrate disaster risk reduction into their national development plans and policies. This includes taking a disaster-risk-informed approach to their national Sustainable Development Goals strategies; implementing the Sustainable Development Goals with indicators specific to disaster risk reduction; and promoting integration between national and local disaster reduction strategies. The development of national climate change adaptation plans and national disaster risk reduction strategies by 2020, as per the Paris Agreement and the Sendai Framework, are critical opportunities for coherence. The United Nations Office for Disaster Risk Reduction is working with the United Nations Framework Convention on Climate Change secretariat to develop technical guidance to support countries in developing integrated national climate change adaptation plans and national disaster risk reduction strategies.

Diaspora communities

72. The positive role of investments by migrants and diasporas towards sustainable development in their communities of origin has been well documented, and is an important resource for building resilience. In 2017, worldwide remittance flows were estimated to have reached \$596 billion, the majority of which were to developing countries. These flows tend to play a particularly important role in poor and small economies, and are often a principal lifeline for households in conflict-affected countries, or in times of economic hardship and in the aftermath of natural disasters. Remittances also tend to be relatively stable and often recover fairly quickly from economic shocks in host countries. Beyond financial resources, migrants and diasporas also serve as key networks for knowledge transfer and capacity-building in support of urban and rural communities.

Innovative, urban networks

73. There are promising partnerships being pursued at the local level through networks of cities across the globe. Many of these are rooted in the best practices of bottom-up, locally driven priority-setting and development. The C40 Cities Climate Leadership Group — the global network of cities committed to addressing climate change — is a good example of increasing cross-border collaboration between cities that underlines the value of tackling environmental degradation and carbon emissions in urban communities. Such a network, which is based on knowledge sharing and data collaboration, is especially critical given that, globally, urban areas will need to make more than 60 per cent of the reductions in greenhouse gases necessary by 2050 (compared to 2013 levels) and non-urban areas approximately 40 per cent.¹⁵

74. In response to the calls made by the Sendai Framework and the Paris Agreement, cities are mainstreaming resilience in their policymaking and taking transformative action through various global efforts, including the Making Cities Resilient campaign of the United Nations Office for Disaster Risk Reduction. Making Cities Resilient

¹⁵ New Climate Institute, "Opportunity 2030: benefits of climate action in cities", 2018. Available at: <https://newclimate.org/2018/03/06/opportunity-2030-benefits-of-climate-action-in-cities/>

brings cities together from across the world to focus on implementation support, city-to-city learning and cooperation, local action planning and the monitoring of progress in cities. It provides tools for mapping risk and assessing resilience, including through a "Disaster resilience scorecard for cities".

Integrated United Nations support for collective results

75. The United Nations is strengthening the manner in which it works coherently at the country level in support of implementation of the 2030 Agenda for Sustainable Development and the need for improved sustainability and resilience in diverse country settings. These efforts are being carried out in line with General Assembly resolution 71/243, on the quadrennial comprehensive policy review of operational activities for development, and the ongoing discussion on the Secretary-General's proposals for repositioning the United Nations development system. They are supported by the United Nations analytical framework on risk and resilience (see section II above). The Organization is committed to improving the coherence of its support to efforts to address challenges in the development, humanitarian and peacebuilding spheres. The United Nations strategic approach on climate change action is also critical.

76. Key to supporting efforts at the country level will be the improved use of risk-informed analysis by United Nations entities and greater coordination of this work. For example, the United Nations Children's Fund is launching its guidance for risk-informed programming, a methodology for conducting child-centred risk analysis that is complemented by a collaborative process with multiple child-rights stakeholders to design or adapt programmes to further risk reduction, resilience and peace objectives. The risk-informed programming seeks to achieve development or humanitarian-related results and to safeguard progress for all against the negative impacts of shocks and stresses.

77. Significant data gaps remain with respect to sustainability and resilience, making risk assessment and foresight challenging. There are key challenges regarding specific data on cities, internal and international migration, and other forms of mobility. New sources of data, including geospatial data and "big data", could be useful for addressing some gaps, but will require national and international coordination and cooperation. In building the information systems needed for resilience to climate-related challenges, a wide range of data developers across sectors will need to collaborate and coordinate under the aegis of national statistical offices.

78. These data challenges have been recognized in the 2030 Agenda for Sustainable Development and, with leadership from the United Nations Statistical Commission, are being taken up by international organizations. Success will require unprecedented cooperation at the global and national levels. Strengthened international cooperation is needed for a new form of data development and to build capacities for using data effectively, including within the context of integrated climate impact assessments.

VI. Conclusion

79. This report makes a clear case for supporting sustainable and resilience societies as part of efforts towards the 2030 Agenda for Sustainable Development. The 2030 Agenda is a universal agenda, agreed by States, but reliant on all stakeholders for its successful implementation, not least local communities and local governments, often the first to be affected by unforeseen or emerging development challenges. Four key drivers of risk that have relevance for the sustainability and resilience of urban and rural communities were identified by the report: climate change; poverty and inequality; poorly planned urbanization; and environmental degradation. In support

of sustainability and communities' resilience to such risks and related vulnerabilities, critical areas of action and potential tools are proposed.

80. There are several common, cross-cutting elements that emerge from efforts to support sustainable and resilient societies. All stakeholders are recommended to prioritize these elements in contributing to the achievement of the 2030 Agenda for Sustainable Development. These include: the importance of local ownership and capacities; foresight and risk planning; policy integration; and inclusivity.

81. National and local ownership of strategies for building resilience play a key role in advancing progress on the Sustainable Development Goals. Top-down or one-size-fits-all approaches have a greater chance of failing than those rooted in local realities. Local governments are critical for translating the vision of the 2030 Agenda into tangible progress for communities, households and individuals, especially for those who are at risk of falling behind. Local communities and actors are best placed to understand how to apply the targets of the Sustainable Development Goals to local contexts, priorities and capacities. They are also inclined to thinking about longer-range impacts, flexibility and the specific aspects that could affect effective implementation.

82. All countries should ensure that local capacities and systems are strengthened to guarantee sustainable results and build resilient communities. Local actors must be at the forefront of concrete actions to strengthen resilience, preparedness and response efforts. Such efforts should thus be as local as possible and as international as necessary. A critical, initial step is to assess the existing local capacities for preventing and responding effectively to crises in urban and rural communities, while charting strategies for filling identified gaps. Because local capacities vary and local institutions often share responsibility with other levels of authority, local capacities should be strengthened in line with national capacity development efforts to ensure coherence.

83. Foresight and risk planning is also a requirement. Short-term thinking is antithetical to building resilience and addressing risk in a sustainable way, but the capacities, incentives and data needed for forecasting are sometimes lacking. Strategic foresight prioritizes resilience by focusing on uncertainty and, using the best available evidence, anticipating how particular problems may be experienced by local communities and what existing and new resources could be used to prevent or resist development setbacks. Awareness informs flexibility in long-term plans, resulting in the formulation of more adaptable policies and programmes.

84. Foresight can also be a useful driver of innovation. In this respect, rural-urban migration is interlinked with issues that include land use, social inclusion and environmental change. Having the foresight to anticipate future needs and challenges can inspire innovative and entrepreneurial projects to address these concerns before they become too disruptive. In the low-capacity contexts of many developing countries, foresight-related training, activities and exercises could be considered useful areas for knowledge-sharing and development cooperation.

85. Economic, social and environmental sustainability and resilience are mutually dependent, and require an integrated approach for policy and planning. The importance of thinking systemically about the continuum of policies that reduce people's exposure to risks is critical for building sustainable and resilient societies; it allows for efforts to address the complex interlinkages between risks and opportunities. Integrated approaches are also necessary to review the range of policies and actions to assess trade-offs and determine the most optimal strategies for achieving the Sustainable Development Goals. The integration of climate change responses with development processes is a further goal, as action on climate change

is more likely to be effective when designed and implemented in the context of other interventions for building sustainability and resilience.

86. Measures taken to build resilience should emphasize inclusive participation by a wide range of stakeholders. This can help to address the differentiated nature of vulnerability and risk within communities and across various population groups. Poor women, for example, are usually among the most severely affected by shocks, and there are a disproportionate number of deaths among women and children caused by extreme weather events. At the same time, women are often the first responders when a disaster strikes and have comprehensive knowledge of the land, resources and local needs, but are often excluded from decision-making processes. Their engagement, as well as the involvement of youth and other vulnerable groups, is critical to shifting societies towards sustainable practices and improved resilience to ensure that no one is left behind.
